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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,440	09/25/2003	Anna Mansson	1517-1027-1	4237

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YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,440

Applicant(s)

MANSSON ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeft et al.(U.S. Patent 6,551,691) in view of Thomas(U.S. Patent 3,650,882).

Hoeft et al. discloses forming a multi-ply web by pressing two webs(2,4) together at raised locations, applying adhesive to the outside of one of the webs at spaced locations using a patterned adhesive roller, applying a third web(3) to the first two, and bonding all three together via the adhesive at the raised location the first two webs are contacting at.(Figure 2; Col. 7, ll. 60-64) The reference does not disclose applying adhesive to one of the first two webs to join them together prior to application of the third web, though it does indicate that adhesive can be applied to both sides of the center web to bond the laminate together rather than using one adhesive roller.(Col. 8, ll. 8-10) Thomas discloses forming a multi-layer laminate by applying adhesive to two webs and then joining all three webs together so the adhesive droplets are opposite each other.(Figure 7) It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an additional patterned adhesive applicator in Hoeft et al. to bond the first two webs(2,4) together before they contact the third web(3)

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since Hoeft et al. indicates that adhesive can be applied to both sides of the center web to bond all three layers together indicating the use of multiple glue application locations(Col. 8, ll. 8-10) and since Thomas discloses how adhesive can be applied to two different webs to both three webs together showing this is an obvious alternative in the art.(Figures 1 and 7)

Regarding claim 2, Hoeft et al. discloses only one lamination roller(22) after the second glue transfer roll since roll (20) is not a lamination roller.

Regarding claim 5,Hoeft et al. discloses that webs 2 and 3 are patterned in a three-dimensional pattern prior to lamination.(Figure 2)

Regarding claim 6, substantially all the adhesive sites on the third web are lined up with those of the joining the first and second webs since Hoeft et al. discloses bonding the webs together only at the points where all three webs contact each other.(Figure 1)

Regarding claims 7 and 8, these appear to be well-known and conventional ranges for the size of the adhesive drop and the number of adhesive locations, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any well-known and conventional ranges for the size of the adhesive drops and the number of drops in an area since they are well-known and conventional. It is noted that the upper range for the size of the drops is over 1 centimeter across, clearly encompassing the well-known drop sizes of multi-layer webs since such conventional materials nearly have drop sizes that large.

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3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Kudo et al.(U.S. Patent 6,802,932).

The references cited above do not disclose a lamination roller being associated with each adhesive transfer roller. Kudo et al. discloses that when bonding multiple layers together, it is known in the art to apply the adhesive to a layer, laminate another layer to it, and then apply adhesive to the combination and laminate all the layers together.(Figure 3) It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a lamination roller after the adhesive application in the combination of Hoeft et al. and Thomas since it is known in the art to laminate layers together using a lamination roller after each layer is added as shown for example by Kudo et al.(Figure 3)

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Andersson et al.(U.S. Publication 2003/0215602).

The references cited above do not disclose the adhesive patterns being different as to shape, size or color for the two different adhesive applications. Andersson et al. discloses forming a multi-layer web wherein the pattern rolls used to form the adhesive patterns can be a different shape.(paragraph [0026]) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use different adhesive pattern shapes in the two adhesive application steps so that different patterns

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can be formed on different sides of the web as taught for example by Andersson et al.[0043]

Regarding claim 10, Andersson et al. discloses the glue sites can form a pattern.[0043]

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Andersson et al.(U.S. Publication 2003/0198788A1)

The references cited above do not disclose using different adhesives in the different adhesive applicators. Andersson et al. '788 discloses using glues of different colors in different applicators.([0015],[0050) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use different composition glues in different adhesive applicators since that would allow the pattern to be different colors on the different sides of the final web.[0050]

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Schulz(U.S. Patent 4,325,768).

The references cited above do not disclose an additional embossing step after lamination of the embossed webs of Hoeft et al. Schulz discloses embossing a multi-layer embossed laminate after lamination of the webs.(Figure 1) This lamination improves softness since it combines closely spaced embossments like those of Hoeft et al. with less closely spaced spot embossments.(Col. 1, ll. 51-56) It would have been obvious to one of ordinary skill in the art at the time the invention was made to emboss

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the multi-layer web after lamination since this would combine the closely spaced embossments of Hoeft et al. and Thomas with relatively large further apart embossments improving the softness and bulk of the web.(Col. 1, ll. 51-56)

7. Claims 1, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al.(U.S. Patent 5,882,769) in view of Thomas.

McCormack et al. discloses forming a multi-ply web from non-embossed film wherein a first film(14) is bonded to a second film(12) and the combination thereof is then bonded to a third film(15).(Figure 7) The bond sites can be aligned.(Figure 5, Col. 8, ll. 32-35) The reference does not disclose the specifics of the application of the adhesive pattern, only disclosing the adhesive can be sprayed on the webs. Thomas discloses bonding webs together by applying adhesive in a pattern to one web using a patterned transfer roller(7,8) which is in contact with a glue applicator(9), then bonding it to the second web.(Figure 1; Col. 2, ll. 57-59) It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the glue to the webs of McCormack et al. using patterned transfer rollers in contact with glue applicators since the spraying of McCormack et al. would not easily allow application of an adhesive pattern and would use more adhesive than necessary and since Thomas discloses applying an adhesive pattern to a web to bond the webs together at specific locations.(Col. 2, ll. 57-59; Figure 1) While McCormack et al. is silent as to whether the laminating roll which presses the third web against the first two is patterned, Thomas teaches using patterned pressing rolls.(Figure 7) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use patterned pressing

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rollers since this would apply pressure only where the adhesive is located as shown for example by Thomas.(Figure 7)

8. Claims 1, 3-10, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al.(U.S Publication 2003/0215602).

Andersson et al. discloses forming a web by bringing a first patterned glue transfer roller(5) having a three dimensional pattern of protuberances into contact with a glue application device(4), transferring glue to the transfer roller which transfers it to a first web(1), and bringing a second web in contact with the first using a lamination roller having a pattern thereon.(Figure 1) A third web can be laminated to the first two such that the glue sites can be opposite one another.[0040] The reference does not disclose how the third web is applied to the combination of the first two. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the same method used to apply the second web to the first to apply the third web to the combination of the first and second, namely by bringing a second patterned glue transfer roller having a three dimensional pattern of protuberances into contact with a glue application device, transferring glue to the transfer roller which transfers it to a web, and bringing a third web in contact with the combined first and second webs using a lamination roller having a pattern thereon, since the reference discloses this is a method of lamination that is lenient to the material so that its structure can be maintained.[0009]

Regarding claim 3, Andersson et al. discloses a first lamination roller(13) after the first glue applicator, and if the same process is used to bond the third web, there would be a second lamination roller after the second glue applicator.

Regarding claims 5 and 28, Andersson et al. discloses the webs can be embossed or unembossed.[0040]

Regarding claims 7 and 8, Andersson et al. discloses the glue sites can be 0.5-110 mm² and 25 to 350,000 locations per m². [0016]

Regarding claim 9, Andersson et al. discloses forming a multi-layer web wherein the pattern rolls used to form the adhesive patterns can be a different shape.(paragraph [0026])

Regarding claim 10, Andersson et al. discloses the glue sites can form a pattern.[0043]

Response to Arguments

9. Applicant's arguments filed 11/28/05 have been fully considered but they are not persuasive.

Regarding applicant's argument that reconfiguring Hoeft to bond the first two webs together would require an additional glue station and an additional joining apparatus which would be substantial changes to the conventional two ply facility, since Hoeft clearly states that adhesive can be applied to both sides of the center web(Col. 8, ll. 8-10), the reference clearly contemplates modifications to the device shown in the figures and clearly suggests that additional adhesive application stations are within the scope of the invention. Bringing the web in above the adhesive rollers rather than below and providing an additional glue application station to apply glue to either the web(3) on the roller(20) or to the center web(4) would not substantially modify the

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device since none of the rollers shown in the device would need to be moved. Only the expected results would be achieved in applying the adhesive in two separate steps, before and after joining of two of the webs versus applying the adhesive in one step before joining any of the webs.

Regarding applicant's argument that modifying Hoeft would render it unsatisfactory for its intended purpose of using a facility designed for manufacturing a conventional two ply paper without requiring substantial changes, Hoeft discloses that a conventional device can be modified by spraying adhesive on both sides of the center web, clearly suggesting replacing adhesive applicator(15). This in fact would constitute a more substantial change than simply providing an additional adhesive applicator and re-routing one web(4). The addition of two spraying stations would be a substantial change, yet it is clearly also within the scope of the reference. Therefore, the addition of one adhesive station and the re-routing of the center web would not appear to be a greater change to the device than what is already contemplated by the reference.

Regarding applicant's argument that Thomas does not teach bonding the first and second web together and then bonding the third to them, Hoeft teaches such.

Regarding applicant's argument that Thomas does not teach the adhesive on one side of a web being in alignment with the adhesive on the other side of the web, examiner regrets the oversight in previous office action of referring to Figure 8 when Figure 7 was the Figure to which examiner intended to refer. Figure 7 in combination with Figure 1 clearly shows the embossments and therefore the adhesive being in alignment. While Figure 7 shows adhesive on only some of the embossments, the

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reference discloses that the web in Figure 3 is formed by the device of Figure 1 (Col. 2, ll. 10-18, 42-52) and that Figure 7 is a device very similar to that of Figure 1 except that adhesive is only applied to some of the embossments, indicating that in Figure 1, it is applied to all of the embossments.

Regarding applicant's argument that Hoeft does not disclose two different adhesive compositions, Andersson et al. does.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BJM


SAM CHUAN YAO
PRIMARY EXAMINER